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Monthly Statistical Report

Prepared by the Finance, Accounting, and Statistics Department

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MARCH 1989

SUMMARY

Total deliveries rose 1.1 percent for March, with most of the increase occurring in residual fuel oil and the "other oils" category. For the quarter as a whole, the data show an increase in deliveries of only 0.4 percent, contrasting with an underlying estimated consumption growth rate of about 2.5 percent. If adjusted for above-trend deliveries last year and warmer weather this year, the rate of increase would have still amounted to only about 2 percent.

These first quarter data include January figures from the Department of Energy which were surprisingly low, given underlying consumption trends and the tendency for secondary and tertiary stocks to build when petroleum prices rise. Thus, we would have expected first quarter deliveries to have exceeded, rather than fallen short of, estimated consumption growth. Although the data are puzzling, the reasons for this divergence are unclear at present.

Domestic crude oil production in March dropped nearly 690 thousand B/D, or over 8 percent, from one year earlier. Although the unusually large decline reflected in part developments related to the tanker grounding near Valdez, almost 300 thousand B/D of the decrease was accounted for by falling production in the lower 48, a decline that has continued now for three years.

Restrictions on tanker operations at Valdez led to temporary curtailments in pipeline operations, which in turn resulted in reduced North Slope output for the month and uncertainties as to when normal shipments would resume. Roughly 600 thousand B/D of Alaskan crude normally goes to the eastern U.S. and the Virgin Islands via Panama and Cape Horn, in addition to about 1.4 million B/D delivered to the West Coast, Alaska, and Hawaii. However, adjustments in crude oil supply logistics, including the rerouting of some shipments and a greater short-term reliance on crude oil inventories, helped to mitigate the impact of the interruption. Alaska's production, which had been running near 2 million B/D, or one quarter of total domestic crude oil output, averaged about 1.7 million B/D for the month.

The lower 48's nearly 300 thousand B/D decline from a year ago, however, represented the continuation of a trend rather than a temporary interruption. In fact, since the major oil price decline of 1986, lower 48 production has fallen by 1.3 million B/D or 18 percent.

March's imports, though continuing to recede from January's recent-year record, still exceeded 7.3 million B/D and contributed to the first quarter's 13 percent, nearly 900 thousand B/D imports increase. For the first quarter, total imports represented 44 percent of deliveries, up from 39 percent one year earlier.

PRODUCT SUPPLIED [1]

Gasoline

DELIVERIES LAG BEHIND ESTIMATED CONSUMPTION.

March's deliveries of gasoline rose only 0.5 percent from one year earlier—despite an expected boost in travel because of an unusually early Easter, a holiday which falls in March only about one fifth of the time. Based on historical data, the occurrence of Easter in March this year would have been expected to have added perhaps 1 to 2 percent to the month's deliveries.

First quarter data also show gasoline deliveries essentially flat compared with last year. These data include January figures from the Department of Energy's *Petroleum Supply Monthly*, which were very surprising and substantially lower than API's original estimate for that month.

Thus, gasoline deliveries data continue to diverge from other indicators of demand. The economy is apparently retaining some of its strength, and the latest travel data also suggest continued growth in demand. In fact, data for January, the most recent available, show a year-to-year jump in highway travel of more than 6 percent—well above last year's average 3.5 percent growth trend and at variance with reported deliveries.

API ESTIMATES

	MARCH		YEAR-TO-DATE	
	Million B/D	Percent Change	Million B/D	Percent Change
Total domestic deliveries	17.7	1.1	17.5	0.4
Crude oil production[2]	7.7	(8.2)	7.8	(5.5)
Total imports[3]	7.3	9.2	7.7	12.9
Stocks (million bbl)[3]	1,008	(0.6)	na	na

However, deliveries and actual consumption have rarely matched exactly on a short-term basis; furthermore, differences between weekly reporting systems (such as API's) and monthly systems occasionally create divergences which are compensated for in subsequent months. Whether updated data for February will raise the first quarter's estimated deliveries remains to be seen; however, it is clear that the first quarter's increase in deliveries as currently calculated almost certainly under-represents consumption growth.

Distillates

YEAR-AGO SURGE MASKS GROWTH THIS MARCH. Distillate deliveries' nearly 4 percent decline from one year earlier indicated more about developments a year ago than for this March. Deliveries for March 1988 were an estimated 200 thousand B/D above trend, in part due to incentives created by changes in diesel tax collection procedures which took effect last April 1. Had the year-ago deliveries been on trend, this March's deliveries, rather than showing a decline, would have increased about 2 percent.

March's weather, being only slightly colder than a year ago and coming near the end of the heating season, likely had a positive, but minor, effect on heating oil demand for the month. In the farm sector, the planting season was just beginning in some southern regions of the U.S. Acreage intentions are up 5 to 12 percent for corn, soybeans, and winter wheat from last year's plantings, indicating some increase in farm distillate usage may be taking place compared with a year ago.

Transportation usage continues to be one of the major factors contributing to distillate fuel oil's strength. With economic growth apparently continuing—though there is some uncertainty as to whether last year's rate has been maintained—increases in highway usage can be expected to have continued at a rate near that of last year, which preliminary data show to have been roughly 5 percent. This implies a contribution to distillate demand growth of 50-75 thousand B/D.

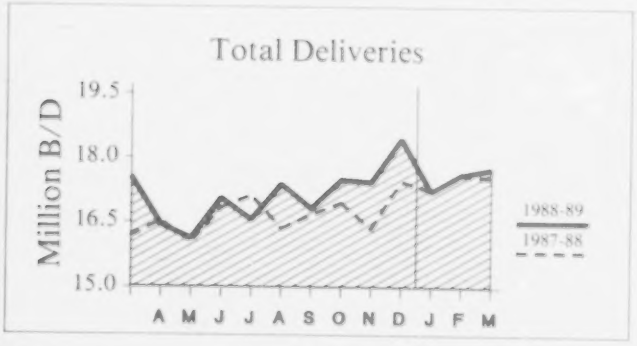
Residual Fuel Oil

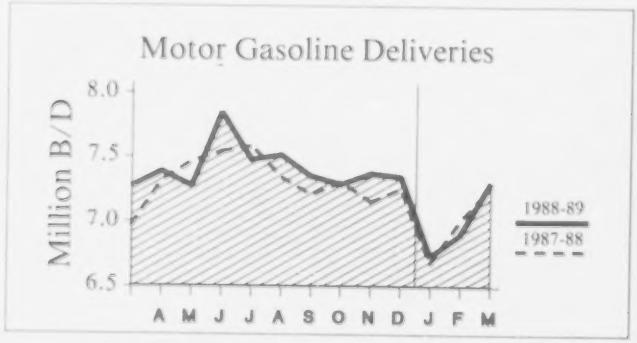
DELIVERIES REVERSE FEBRUARY DECLINE. Deliveries of residual fuel oil are estimated to have been 1,538 thousand B/D in March, representing an increase of 5.8 percent from last month as well as an increase of 7.3 percent from March 1988. The month-to-month rise in deliveries runs counter to the normal seasonal pattern.

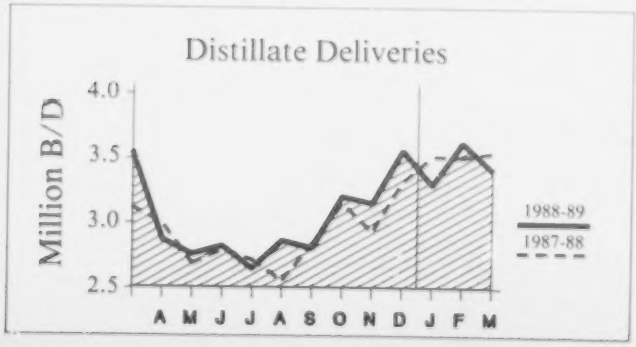
Much of the rise, however, is thought to have come from the industrial sector. Despite rising prices, several large industrial plants, especially in the Northeast, are reported to have taken delivery of sizeable, previously-contracted cargoes of heavy fuel oil during the month, offsetting the previous month's drop in deliveries. This month-to-month volatility, which is characteristic of deliveries to this sector, is believed to have been large enough to have overshadowed the seasonal decline which normally occurs at this time of year in residual fuel oil deliveries as a whole.

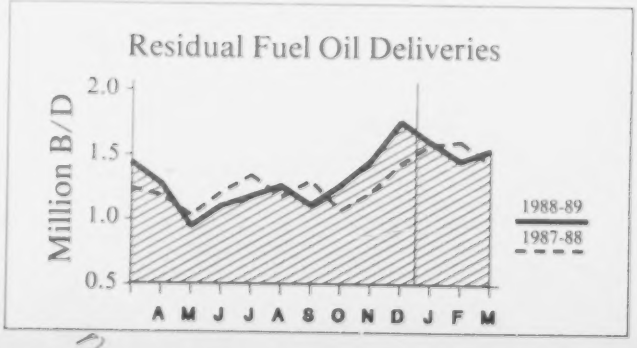
The electric utility sector, having undergone a temporary lull last month, is also believed to have experienced a slight uptick in purchases of heavy fuel oil, contributing to the month-to-month increase. Two reasons are believed to account for the apparently countercyclical behavior: purchases intended for delivery last month were apparently deferred due to lack of storage space until the current month, and a temporary lack of availability of natural gas to some utilities is also reported to have boosted deliveries. Because degree-heating days were close to last year's levels as well as the seasonal norm, weather is not believed to have accounted for much of the recent upswing in deliveries to this sector.

Bunker fuel deliveries, however, are reported to have contracted during the course of the month, with much of the downturn occurring in the Gulf Coast. Many shippers are reported to have been taking on contractual minimums as a result of the recent increase in bunker fuel prices, having apparently decided to defer supplementary purchases.









Kerosine Jet Fuel

TRAFFIC GROWTH ESTIMATED AT 2 TO 3 PERCENT.

Kerosine jet fuel deliveries were essentially flat in March compared with one year earlier, following an unusually large increase for February. Though the first quarter's deliveries as a whole were above trend, so were those for the same period one year earlier. Thus, perhaps only by coincidence, the 2.5 percent increase in deliveries for the first three months compares closely with estimated growth in air traffic.

Though the Eastern strike affected operations of an airline accounting for about 7 percent of industry revenue passenger miles, other airlines apparently picked up some of the slack. Adjusting for leap year effects, growth in miles flown for the first quarter is estimated to be in the 2 to 3 percent range, similar to the 3 percent growth rate of the latter half of last year.

Other Oils

DELIVERIES' RISE CONTINUES.

Deliveries of other oils for March are estimated to have been 4,272 thousand B/D, representing an increase of 1.8 percent from the previous month and a 4.6 percent rise from March 1988. As during the last several months, petrochemical feedstocks are believed to have dominated the other oils category. The rising availability of light-end feedstocks as well as the deteriorating competitive position of naphtha and gasoil have therefore apparently resulted in a shift in ethylene economics in favor of liquefied petroleum gases. Propane, whose deliveries to petrochemical plants were reported to have increased substantially, was the apparent feedstock of choice within the light-end group. It is also believed that, as a result of their increased availability in the wake of new RVP requirements, butanes are being increasingly used as ethylene feedstocks in several petrochemical plants. Naphtha and gasoil deliveries, in contrast, were reported to have been displaced by the lighter feedstocks due to changes in relative price brought about by recent increases in crude oil prices.

Asphalt and road oil deliveries are believed to have increased from levels of last month, but the increase is believed to have been somewhat less than the seasonal upswing normally seen at this time of year. Higher-than-normal precipitation are believed to have delayed road building and maintenance in several parts of the country, especially in the frostbelt. Similar weather-related problems as well as some weakness in new housing construction are also reported to have contributed to the weakness in deliveries of the product.

SUPPLY [1/]

Production

CRUDE OIL DROPS 8 PERCENT FROM LAST MARCH.

Partly a reflection of developments related to the tanker grounding near Valdez, domestic crude oil production in March fell almost 690 thousand B/D or more than 8 percent compared with a year ago. However, nearly 300 thousand B/D of the year-to-year decrease in domestic output was accounted for by the decline in lower 48 production, continuing the downtrend of the past three years.

A four-day halt in tanker operations at Valdez and reduced operations for the remainder of the month led to a cut in pipeline throughput, slowing Alaskan production to an average 1.7 million B/D for the month. This compares with recent prior levels near 2 million B/D.

The lower 48 production's fall-off, however, reflects a continuation of a decline that has reduced production outside Alaska by 1.3 million B/D, or 18 percent, since early 1986. Despite the partial recovery in crude oil prices over the past four months, drilling activity has continued at well below pre-1986 levels; experience of the past three years has demonstrated the volatility of prices and the risk that this volatility entails to producers.

Imports

FIRST QUARTER IMPORTS JUMP NEARLY 13 PERCENT.

Although March's imports continued to recede somewhat from January's recent high, first quarter imports were still up nearly 13 percent from a year ago. Total imports in the first quarter represented 44 percent of domestic deliveries, up from 39 percent one year earlier.

More than 40 percent of the first quarter's 880 thousand B/D increase was in the form of products, reflecting a continuation of the trend of the past several years of rising product imports. In the early 1980s, product imports averaged about 1.6 thousand B/D, while in the past several years they have been running in the 2.0 to 2.1 million B/D range. This year's first-quarter rise of 17 percent brought product imports to nearly 2.5 million B/D.

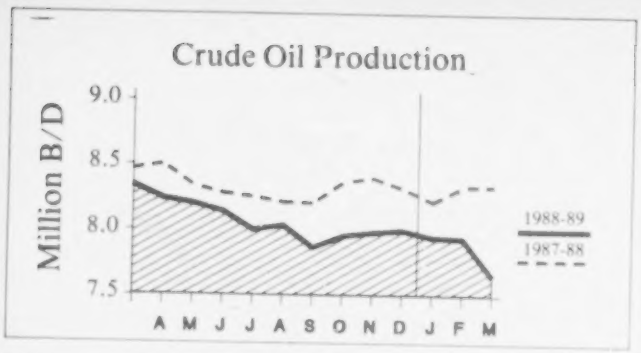
Imports of gasoline and components in the first quarter averaged 452 thousand B/D, up 74 thousand B/D or 20 percent from a year ago but short of last summer's three-month average of 520 thousand B/D. Imports of other products have increased as well during the first quarter, with distillates rising 96 thousand B/D and residual fuel oil, 44 thousand B/D.

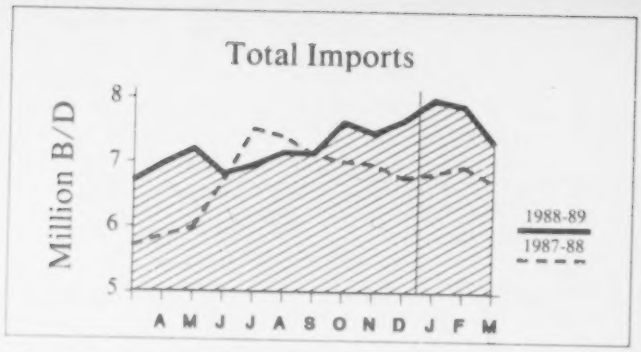
Refinery Operations

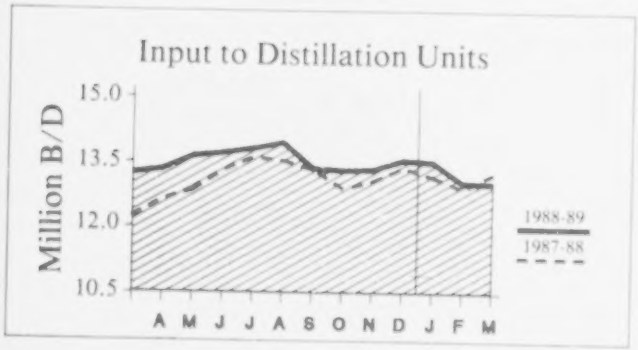
ACTIVITY DOWN COMPARED TO HIGH LEVELS LAST MARCH.

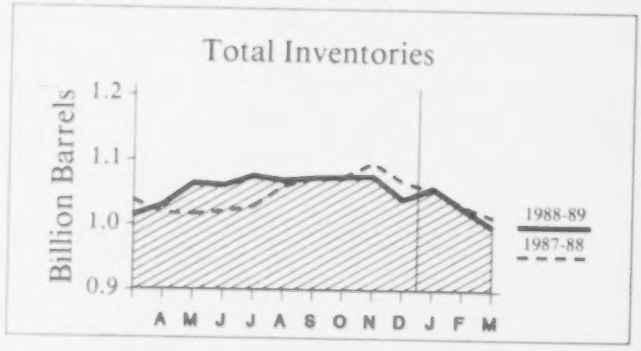
Compared with the unusually high refinery activity last March for that time of year, input to distillation units this March was down 1.6 percent—but up over 6 percent from the level of two years ago. Utilization of operable capacity averaged nearly 82 percent, still well above rates experienced for the month earlier in the 1980s. With a number of refineries in turnaround, gasoline production declined 2.6 percent and distillates, 1.3 percent. Residual fuel oil output, however, rose slightly.

With the approach of the summer driving season and the lead times necessary to move gasoline down the distribution chain, refiners are already in the process of making adjustments to meet new volatility requirements. The EPA's new standard reduces vapor pressure for the summer by varying amounts depending on the region; some Northeast states have proposed more stringent restrictions. Production of gasoline with lower volatility entails a reduction in the amount of butanes that can be used for gasoline blending. As a result, there has been some impact on gasoline production costs and









on gasoline supply capability; however, due to delays in issuance of the rule, the standard takes effect later than required in future years.

Inventories

TOTAL STOCKS FALL 28 MILLION BARRELS. Total inventories fell 28 million barrels in March, about twice the average for the month. Both gasoline and distillate stocks' respective declines of 16 million and 12 million barrels were somewhat more than average, but stocks of both products ended the month with levels at or above those of a year ago.

Crude oil inventories declined by 6 million barrels over the month; the interruption in Alaskan supplies helped to reduce West Coast (PAD V) crude oil stocks to about 76 million barrels at month-end, including Alaskan oil in transit. This compares with a range of from 70 to 90 million barrels experienced over the past three years.

1/ Total supply, i.e., production plus imports adjusted for net stock change is equal to total products supplied from primary storage. Total products supplied from primary storage less exports is equal to total domestic products supplied. Information contained in this report is derived from information published in the API Weekly Bulletin and is based on historical analysis of the industry. All data reflect the most current information available to the API and include all previously published revisions.

2/ Includes lease condensate.

3/ API data do not include crude oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR (according to the U.S. Department of Energy, the SPR held approximately 566 million barrels as of March 31, 1989).

ESTIMATED UNITED STATES PETROLEUM BALANCE

(Daily Average in Thousands of 42 Gallon Barrels)

Products Supplied/Supply From Primary Storage	MARCH			YEAR-TO-DATE		
	1989[1]	1988[2]	% Change	1989[3R]	1988[2]	% Change
Products Supplied:						
Total motor gasoline	7,299	7,265	0.5	6,977	6,982	(0.1)
Finished leaded motor gasoline*	992	1,421	(30.2)	980	1,379	(28.9)
Finished unleaded motor gasoline*	6,307	5,844	7.9	5,997	5,603	7.0
Naphtha-jet	225	197	14.2	198	202	(2.0)
Kerosine-jet	1,198	1,200	(0.2)	1,309	1,277	2.5
Distillate fuel oil	3,411	3,544	(3.8)	3,434	3,524	(2.6)
Residual fuel oil	1,538	1,434	7.3	1,532	1,536	(0.3)
All other oils[4]	4,272	4,084	4.6	4,288	4,160	3.1
Reclassified[5]	- 213	- 194	9.8	- 233	- 238	(2.1)
Total domestic products supplied	17,730	17,530	1.1	17,505	17,443	0.4
Exports	886	839	5.6	837	866	(3.3)
Total products supplied	18,616	18,369	1.3	18,342	18,309	0.2
Supply:						
Domestic production:						
Crude oil[6]	7,652	8,340	(8.2)	7,841	8,295	(5.5)
Natural gas liquids	1,675	1,628	2.9	1,657	1,597	3.8
Other supply[7]	1,054	1,137	(7.3)	775	1,005	(22.9)
Total domestic supply	10,381	11,105	(6.5)	10,273	10,897	(5.7)
Imports:						
Crude oil, total	4,934[10/]	4,766[10/]	3.5	5,169[10/]	4,654[10/]	11.1
Canadian	686	663	3.5	652	659	(1.1)
Other	4,248	4,103	3.5	4,517	3,995	13.1
Products, total	2,384	1,938	23.0	2,539	2,171	17.0
Residual fuel oil	703	610	15.2	755	711	6.2
Other	1,681	1,328	26.6	1,784	1,460	22.2
Total imports	7,318	6,704	9.2	7,708	6,825	12.9
Total supply	17,699	17,809	(0.6)	17,981	17,722	1.5
Stock change, all oils	- 917	- 560	XXXX	- 361	- 587	XXXX
Refinery Operations						
Input to crude oil distillation units	13,030	13,241	(1.6)	13,198	13,111	0.7
Operable capacity	15,907	15,861	0.3	15,832	15,896	(0.4)
Refinery utilization (%)[8]	81.9%	83.5%	(1.9)	83.4%	82.5%	1.1
Crude oil runs	12,873	13,072	(1.5)	13,043	12,925	0.9

Stocks (millions bbls.)	1989		1988[2]	% Change from ...	
	Mar. 31[9]	Feb. 28[9]	Mar. 31	Previous Month	Year Ago
Crude oil [10/]	325.5	331.0r/	353.6	(1.7)	(7.9)
Unfinished oils	110.2	106.6r/	102.1	3.4	7.9
Total motor gasoline**	231.1	246.7r/	231.3	(6.3)	(0.1)
Finished leaded motor gasoline*	32.7	39.0r/	48.9	(16.2)	(33.1)
Finished unleaded motor gasoline*	158.6	165.2r/	145.0	(4.0)	9.4
Naphtha-jet	5.9	6.5	7.2	(9.2)	(18.1)
Kerosine-jet	37.0	35.9	39.5	3.1	(6.3)
Distillate fuel oil	95.5	107.6r/	89.3	(11.2)	6.9
Residual fuel oil	41.1	44.0	44.1	(6.6)	(6.8)
All other oils	161.3	157.7r/	146.5	2.3	10.1
Total all oils	1,007.6	1,036.0r/	1,013.6	(2.7)	(0.6)

1/ Based on API estimated data converted to a monthly basis.
2/ Source: U.S. Department of Energy.
3/ Source: January, U.S. Department of Energy, February-March, API.
4/ Includes crude losses.
5/ Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from total domestic products supplied.
6/ Includes lease condensate.
7/ Includes Unaccounted-for crude oil, Refinery input of other hydrocarbons, and Processing gain.
8/ Represents "Input to crude oil distillation units" as a percent of "Operable capacity."
9/ Derived by interpolating API weekly stocks data.
10/ Data do not include oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR.
R/ Revised.
* Included in motor gasoline.
** Includes finished leaded, finished unleaded, and motor gasoline blending components stocks.